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# IN THE TENNESSEE PUBLIC SERVICE COMMISSION NASHVILLE, TENNESSEE 20 PM 4 C6

EXECUME CONCLASA

IN RE: IN RE: PETITION OF AT&T,	)
MCI, SPRINT AND WORLDCOM	)
d/b/a WILTEL NETWORK	) <b>DOCKET NO. 98-00097</b>
SERVICES FOR THE	)
COMMENCEMENT OF A	)
RULEMAKING PROCEEDING TO	)
PROVIDE FOR THE TERMINATION	)
OF PRICE CAP REGULATION FOR	)
INTEREXCHANGE CARRIERS AND	)
TO AMEND RULE 1220-4-255(2).	)

MOTION TO FILE COMMENTS IN REPLY TO AFFIDAVIT OF MR. JOSEPH GILLAN ON BEHALF OT AT&T TELECOMMUNICATIONS OF THE SOUTH CENTRAL STATES

Comes the Consumer Advocate Division of the Office of the Attorney General and Reporter, on behalf of Tennessee consumers, and respectfully moves the Tennessee Regulatory Authority to accept the attached Affidavit of Dr. Stephen N. Brown as part of the record in docket 98-00097. The affidavit addresses issues first raised in this docket in the affidavit of Mr. Joseph Gillan filed on behalf of AT&T Telecommunications of



the South Central States on October 18, 1999.

The Affidavit of Dr. Brown addresses the issue of whether the circuit switched network is or will become obsolete. Mr. Gillan, on behalf of AT&T, states that the switched network is largely obsolete and, therefore, the fundamental cost bases of traditional pricing will become irrelevant. Dr. Brown disagrees and cites supporting evidence for his position. This evidence should be considered by the TRA in order to reach a sound result in this matter.

Respectfully submitted,

Vance L.Broemel, Assistant Attorney

General

Consumer Advocate Division Attorney General's Office

425 5th Ave. North

Nashville, TN 37243

#### CERTIFICATE OF SERVICE

I hereby certify that this document was served on parties of record by U.S. Mail or by facsimile this Lay of October, 1999.

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Vance I. Broemel

## BEFORE THE TENNESSEE REGULATORY AUTHORITY NASHVILLE, TENNESSEE

IN RE: PETITION OF AT&T, MCI, SPRINT AND WORLDCOM d/b/a WILTEL NETWORK SERVICES FOR THE COMMENCEMENT OF A RULEMAKING PROCEEDING TO PROVIDE FOR THE TERMINATION OF PRICE CAP REGULATION FOR INTERCHANGE	)))))))))	DOCKET NO. 98-00097
	)	

#### **AFFIDAVIT**

Comes the affiant Dr. Stephen N. Brown after being duly sworn who deposes and says:

I am Stephen N. Brown.

I am an economist in the Consumer Advocate Division, Office of the Attorney General.

I review utility filings and information relating to rates and rate changes and follow the economic conditions that affect the companies. I also assess and evaluate facts for the Consumer Advocate Division and other entities within the Office of the Attorney General.

From 1986 to 1995 I was employed by the Iowa Utilities Board as Chief of the Bureau of Energy Efficiency, Auditing and Research, and Utility Specialist and State Liaison Officer to the U.S. Nuclear Regulatory Commission. From 1984 to 1986 I worked for Houston Lighting & Power as Supervisor of Rate Design. From 1982 to 1984 I worked for Arizona Electric Power Cooperative as a Rate Analyst. From 1979 to 1982 I worked for Tri-State Generation and Transmission Association as Power Requirements Supervisor and Rate Specialist. From 1979 through 1995

my work spanned many issues including cost of service studies, rate design issues, telecommunications issues and matters related to the disposal of nuclear waste.

I have an M.S. in Regulatory Economics from the University of Wyoming, an M.S. and Ph.D. in International Relations with a specialty in International Economics from the University of Denver, and a B. A. from Colorado State University.

I am a past member of the NARUC Staff Committee on Management Analysis, a past trustee of and a member of the Board for the Automatic Meter Reading Association, and a current member of the National Association of Business Economists.

I am providing this affidavit in response to a technical issue not raised previously but raised solely in the affidavit provided by Joseph Gillan and filed October 18, 1999 by AT&T in Notice of Rulemaking: Rule 1220-4-2.55(2)("IXC Rules.")

I respectfully submit that Mr. Gillan's opinion, expressed at par. 24 that the "circuit switched network...is largely obsolete," and his opinion expressed at par. 26, that packet-switching technology makes "the fundamental cost basis of traditional pricing...irrelevant" are both wrong. Both opinions contradict the expert opinion in the public record of the FCC's July 9, 1998 En Banc hearing, when Mr. Steven G. Chrust, vice-chairman of Winstar, told the FCC: "As their packet switch networks are developed and deployed, the incumbents will not abandon their circuit switch networks. They will merge their existing networks with the data networks." Pages 1, 2 and 12-15 of the hearing's transcript are attached to my affidavit. Page 15 contains the quote I referenced.

I agree with Mr. Ghrust. Therefore, the TRA should be more than circumspect about the time frame applied to Mr. Gillan's claim that "fundamental cost basis of traditional pricing...will become irrelevant." He has specified no particular month or year when irrelevancy is an accomplished fact. Nor does he say traditional pricing is irrelevant right now, today. This omission should be considered as evidence that Mr. Gillan is not speaking of the imminent future. Further evidence suggests that the speculative future is appropriate time frame for Mr. Gillan's concerns.

 For example, at par. 26 Mr. Gillan says the "scale efficiency of the technology overlapped with terabit per second (and ever increasing) fiber systems will drive costs by any measure down to levels where usage-based pricing may not even be administratively sustainable" without saying when the unsustainability begins.

However, in the En Banc hearing Mr. James Crowe of Level 3 told the FCC commissioners: "and finally, I think you['ve] got to remember that today's wide band -- today's broadband is tomorrow's narrow band. This process is just starting [emphasis added by affiant]. It's going to be continuous. We're headed-- the bandwidth of the optic nerve, by the way isn't characterized yet. But it's in the gigabits, perhaps hundreds of gigabits a second. So, we've got a long, long period of time before we deliver the kind of bandwidth people demand [emphasis added by affiant]." Mr. Crowe makes this statement at page 80 of the En Banc's hearing's transcript. A copy of that page is attached to my affidavit.

At par 32. of his affidavit Mr. Gillan characterizes the proposed rule as "doomed to failure," but I have shown evidence that the technological basis of Mr. Gillan's claims has little potential for fruition in the immediate future. If the time comes when minutes of use and access charges disappear as a revenue source for telecommunications service providers, the TRA has the option of terminating or amending the rule as needed.

Further the affiant sayeth not.

State of Tennessee County of Davidson

Before me, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Stephen N. Brown, who, being by me first duly sworn and deposed made the statement above.

Sworn to and subscribed before me this

20th day of October, 1999.

Teresa a. Harris
Notary Public
My commission expires Jan. 25, 2003

### FEDERAL COMMUNICATIONS COMMISSION

In the matter of:

EN BANC HEARING

JULY 9, 1998

Federal Communications Commission Room 856 1919 M Street, N.W. Washington, D.C.

Thursday, July 9, 1998

The hearing commenced at 11:10 a.m.

#### APPEARANCES:

WILLIAM E. KENNARD, CHAIRMAN
COMMISSIONER MICHAEL K. POWELL
COMMISSIONER SUSAN NESS
COMMISSIONER HAROLD FURCHTGOTT-ROTH
COMMISSIONER GLORIA TRISTANI
STEVE HOOPER
STEVEN G. CHRUST
MAURICE FRANCE
ALI SHADMAN
CHARLES J. MCMINN
MILO MEDIN
W. RICHARD MORRIS
JOSEPH R. ZELL
JAMES Q. CROWE

#### PROCEEDINGS

- 1 CHAIRMAN KENNARD: Good morning and welcome.
- Welcome to the Commission's En Banc Hearing on bandwidth.
- 3 I'm delighted that we have so much interest in this subject.
- I truly believe that encouraging more bandwidth,
- 5 particularly, to residential consumers in the country, is
- 6 the next great frontier in communications policy.
- As I was saying, bandwidth is the great -- the
- 8 next great frontier in communications policy. And I want
- 9 the hallmark of this Commission's work to be that we
- 10 encourage the competitive provision of high speed networks
- and services using any appropriate technology for all
- 12 Americans wherever they live, at home, at work, in schools,
- libraries, hospitals, whether they live in cities or in
- 14 rural areas, on reservations. Wherever there's demand,
- there should be bandwidth.
- There are a wide variety of firms using various
- 17 technologies all wanting to provide high speed networks and
- 18 services. And I believe it's important that all of these
- 19 firms, whether new entrants or established providers, be
- 20 able to compete without being constrained by burdensome
- 21 regulation or being held back unfairly through the exercise
- of market power by those who control essential bottleneck
- 23 facilities.
- One of the great challenges that we have at the

- for effective competition. And to eliminate some of those
- 2 regulations would make it more difficult for companies like
- 3 NextLink to continue.
- I see the red light is on, and that means I must
- 5 cease, I guess.
- 6 CHAIRMAN KENNARD: Thank you. Mr. Chrust?
- 7 MR. CHRUST: Good morning, Mr. Chairman and
- 8 Commissioners. And thank you for the opportunity to appear
- 9 before you.
- 10 My name is Steven Chrust. I'm vice chairman of
- 11 WinStar, a wireless competitive local exchange carrier. By
- way of introduction, WinStar Communications is a nationwide
- 13 CLEC with broadband licenses in 38 gigaHertz spectrum
- 14 covering the majority of the commercial population and much
- of the residential population serving small and medium-sized
- business customers, as well as long distance carriers and
- 17 other wholesale customers.
- Over the next several years, WinStar also will be
- 19 using new multi-point technology which currently is being
- 20 tested for commercial use over the next 12 months, first to
- 21 business and then certain residential markets.
- Our company generally offers the same services as
- other facilities-based CLECs, but our last mile connection
- 24 is high capacity broadband wireless. This broadband
- 25 wireless connection enables WinStar to significantly expand

- the addressable market and offers lower network buildout and operating costs, because we do not need to obtain
- 3 construction permits, rights of way, dig up streets and
- 4 string fibre to poles or through conduit which itself, is a
- 5 very labor-intensive process.
- 6 We simply place small antennas on rooftops of
- 5 buildings where we serve customers. We offer a full array
- 8 of broadband services to the greater bandwidth we will be
- 9 able to deliver on a more cost effective basis than wired
- 10 mediums.
- Because we do not need access to the incumbent
- 12 local exchange carrier local loop or the ILEC switch to
- originate traffic except as a transition while we construct
- 14 our network, our interconnection needs are concentrated
- principally at the interoffice level for the basic task of
- interconnection of our network for the ILEC network, for
- termination to customers not on our facilities.
- It is important, though -- I can't emphasize this
- 19 too greatly, to fully appreciate the need for a transition
- 20 period which is sufficiently long to allow the new market
- 21 entrants to compete effectively against the entrenched
- 22 incumbents who hold great market power and substantial
- 23 advantages which form significant barriers to entry.
- With respect to deployment of advanced
- 25 telecommunications capabilities, let me begin by saying that

- there is no doubt that the Telecom Act has facilitated the
- 2 deployment of broadband services. It tore down and reduced
- many of the legal barriers that stood in the way of the
- 4 success of the company such as WinStar. It's vitality,
- 5 effectiveness and relevance two and a half years after its
- 6 enactment is undiminished.
- As a direct result of the Act's passage,
- 8 customers' needs are rapidly reshaping today's
- 9 telecommunications marketplace. The first evidence of this
- 10 phenomenon is the creation by the CLEC's of the nation's
- 11 first digital local networks in direct response to increased
- 12 customer demand for broadband capabilities. This represents
- a major point of differentiation from the ILEC's who still
- 14 rely principally on copper wire technology for the local
- 15 loop.
- 16 Importantly, however, the competitive pressures
- 17 the CLEC's have brought to bear is directly responsible for
- 18 moves by the incumbents to embrace new technologies and to
- 19 upgrade their networks. This is not an accident or an
- 20 anomaly that has occurred despite the Act. Rather, it is a
- 21 direct result of the success of the Act. Competition, not
- 22 regulatory relief is the best incentive to deployment of
- 23 advanced telecommunications capabilities.
- 24 CLEC's today are among the nation's leading
- 25 providers of data services. For example, WinStar uses

- spectrums to provide high capacity broadband services to our
- 2 customers, what we call wireless fibre service. In addition
- 3 to supporting such high bandwidth services, our 38
- 4 gigaHertz-based networks and the networks of other CLECs
- 5 provided an additional advantage, the ability to offer and
- 6 manage unified voice and data services over a single network
- 7 infrastructure.
- 8 With respect to the role of Section 706 in
- 9 fostering the deployment of advanced telecommunications
- capabilities, let me stress the Telecom Act has written its
- 11 technology neutral. When it comes to interconnection,
- unbundling publication and resale of the incumbent's
- networks, the Act does not distinguish between data and
- 14 voice. And that was not the point of Section 706. The Act
- stands for the proposition that networks are networks
- 16 regardless of the services provided over them.
- As their packet switch networks are developed and
- deployed, the incumbents will not abandon their circuit
- 19 switch networks. They will merge their existing networks
- 20 with the data networks.
- In fact, if we allow 706, doing so will subvert
- 22 the benefits technology is now beginning to offer as all
- 23 services will be deliverable on the same network, reducing
- 24 costs and increasing productivity. For CLEC's to reach
- 25 their full potential in deploying technology for advance

1	the copper loop. Not ADSL, not advanced services, not
2	trunking, not switching, not long haul. The market will
3	provide_capital to compete with all of those and already is.
4	But that loop is not in a condition today to
5	accept advanced services. One of the players has to do
6	something to it to make it available to competitors, and
7	they have no interest, no economic interest in doing so.
8	MR. MCMINN: In fact, an economic disactive
9	disinterest from doing it.
10	MR. CROWE: Well, sure. They're acting in their
11	economic interests. What else would they do?
12	MR. MCMINN: I asked
13	MR. CROWE: And finally I have one last point.
14	And finally, I think you got to remember that today's wide
15	band today's broadband is tomorrow's narrow band. This
16	process is just starting. It's going to be continuous.
17	We're headed the bandwidth of the optic nerve, by the
18	way, isn't characterized yet. But it's in the gigabits,
19	perhaps hundreds of gigabits a second. So, we've got a $\int \mathcal{U}$
20	long, long, long period of time before we deliver the kind
21	of bandwidth that people demand.
22	And individual assumptions about technologies
23	winners and losers, whose got to provide the service, will

CHAIRMAN KENNARD: Thank you. Mr. McMinn?

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prove inaccurate. You've got to let the market operate.

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